- --28. A cosmetic for regulation of cytokine production, induction of nitrogen monoxide production, or anti-allergy, characterized in that the cosmetic comprises as an effective ingredient a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof.
- 29. The cosmetic according to claim 28, wherein the cytokine is an interleukin or an interferon.
- 30. The cosmetic according to claim 29, wherein the interferon is interferon- γ .
- 31. The cosmetic according to claim 29, wherein the interleukin is interleukin-12.
- 32. The cosmetic according to claim 28, wherein the cosmetic for anti-allergy is a cosmetic for suppression of IgE production.

- 33. A method of treating or preventing a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease, wherein the method comprises administering a fucoidan derived from *Kjellmaniella* crassifolia and/or a degradation product thereof.
- 34. The method according to claim 33, wherein the cytokine is an interleukin or an interferon.
- 35. The method according to claim 34, wherein the interferon is interferon- γ .
- 36. The method according to claim 34, wherein the interleukin is interleukin-12.
- 37. The method according to claim 33, wherein the allergic disease is a disease requiring suppression of IgE production.
- 38. The method according to claim 33, wherein the fucoidan and/or a degradation product thereof are orally administered.

- 39. A method for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production, wherein a fucoidan derived from Kjellmaniella crassifolia and/or a degradation product thereof is used as an effective ingredient.
- 40. The method according to claim 39, wherein the cytokine is an interleukin or an interferon.
- 41. The method according to claim 40, wherein the interferon is interferon- γ .
- 42. The method according to claim 40, wherein the interleukin is interleukin-12.
- 43. The method according to claim 39, wherein a food, drink or feed containing the fucoidan and/or a degradation product thereof as an effective ingredient is used.
- 44. The method according to claim 39, wherein a cosmetic containing the fucoidan and/or a degradation product thereof as an effective ingredient is used.

- 45. A cosmetic which comprises an effective amount of a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof, said cosmetic being present in an effective amount for regulation of cytokine production, induction of nitrogen monoxide production, or anti-allergy.
- 46. The cosmetic according to claim 45, wherein the daily adult dose of the effective ingredient is from 0.1 to 2000mg/kg.
- 47. The cosmetic according to claim 45, wherein the effective ingredient is present in an amount from 0.0001 to 10% by weight.
- 48. A cosmetic composition comprising 0.001 to 20% by weight of a fucoidan derived from *Kjellmaniella crassifolia* and/or a degradation product thereof.
- 49. A method of treating or preventing a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease, which comprises administering an effective amount of the cosmetic composition of

claim 45 to a subject in need thereof for treating or preventing a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease.

50. A method for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production, which comprises administering an effective amount of the cosmetic composition of claim 45 to a subject in need thereof for regulating cytokine production, inducing nitrogen monoxide production, suppressing allergy, or suppressing IgE production.



51. A method of treating or preventing a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease, which comprises administering an effective amount of the cosmetic composition of claim 48 to a subject in need thereof for treating or preventing a disease requiring regulation of cytokine production, a disease requiring nitrogen monoxide production, or an allergic disease.